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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/757,017	01/14/2004	Heinrich Kladders	1/1448	3319
28501	7590	01/23/2008		
MICHAEL P. MORRIS BOEHRINGER INGELHEIM CORPORATION 900 RIDGEBURY ROAD P. O. BOX 368 RIDGEFIELD, CT 06877-0368			EXAMINER PATEL, NIHIR B	
			ART UNIT 3772	PAPER NUMBER
			MAIL DATE 01/23/2008	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/757,017

Applicant(s)

KLADDERS ET AL.

Examiner

Nihir Patel

Art Unit

3772

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01.04.2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 9 and 16-20 is/are allowed.
- 6) ☒ Claim(s) 1-8 and 10-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on January 4th, 2008 has been entered.

Response to Arguments

1. Applicant's arguments filed on January 4th, 2008 have been fully considered but they are not persuasive. The applicant argues that Jaeger reference does not teach or disclose elevation and/or depression microstructures and elevation and/or depression nanostructures. The examiner disagrees with the applicant's arguments. First the examiner would like to point out that that claims 1 and 7 clearly state that at least of microstructures and nanostructures requires either an elevation or a depression. Page 9 last paragraph and continued on page 10 of the Jaeger reference teaches the limitation of microstructures located on the surfaces and Page 10 lines 5-10 clearly states that the nozzles in the nozzle member may run parallel or may be inclined relative to one another indicating that there is an elevation and/or depression depending on which way you look at the nozzle.

Allowable Subject Matter

2. Claims 9 and 16-20 are allowed. The prior art does not teach or suggest a check nut engaging the nozzle holder and having an end face and a bore including a side wall thereof, which communicates with the through-bore of the nozzle holder and widens out continuously

therefrom, wherein at least one of an outer surface of the end face of the check nut and the side wall of the bore of the check nut include at least one of microstructures and nanostructures.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims **1-8 and 10-15** are rejected under 35 U.S.C. 102(b) as being anticipated by Jaeger et al. (WO 97/12687).

5. **As to claims 1 and 12**, Jaeger teaches a device of miniaturized construction for producing high pressure in a fluid to be atomized that comprises a nozzle **54** for a delivery device for fluids comprising an inlet side and an outlet side wherein the outer surface of the outlet side includes at least one of elevation and/or depression microstructures and nanostructures (see page 9 beginning last paragraph continued on page 10 lines 1-10).

7. **As to claim 2**, Jaeger teaches an apparatus that comprises at least one nozzle opening (see page 9 last paragraph).

8. **As to claim 3**, Jaeger teaches an apparatus that comprises at least two nozzle openings oriented so that the jets of fluid emerging from them intersect (In a nozzle member having at least two nozzle openings at the outlet end, the directions of spray may be inclined relative to one another at an angle from 20 to 160 degrees, preferably at an angle 60 to 150 degrees. The directions of spraying meet in the vicinity of the nozzle openings" (see page 10 first full paragraph). This implies that the jets of fluid would intersect).

9. As to **claim 4**, Jaeger teaches an apparatus wherein the nozzle is formed from at least two constructional units (**The nozzle member consists of two plates of glass and/or silicon firmly joined together (see page 9 fourth paragraph). Each plate of glass being a constructional unit makes it two constructional units**).

10. As to **claim 5**, Jaeger teaches an apparatus wherein the constructional units comprise superimposed plates, at least one of the plates produced by microtechnology, so that the plates lying one on top of the other define, on one side, a fluid inlet connected to a channel system and/or a filter system which then opens into one or more fluid outlets (**see page 9 fourth paragraph**).

This is a product-by-process where the product is the superimposed plates lying one on top of the other define, on one side, a fluid inlet connected to a channel system and/or a filter system which then opens into one or more fluid outlets. The process or method of production is microtechnology.

Even though product-by-process claims are limited by and defined by the process, determination or patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior art product was made by a different process. *In re Thorpe*, 777 F.2d. 695, 227 USPQ 964, 966 (Fed. Cir. 1985).

11. As to **claim 6**, Jaeger teaches an apparatus wherein the nozzle has at least two nozzle outlets oriented towards one another (**see page 10 first full paragraph**).

12. **As to claim 7**, Jaeger teaches a device of miniaturized construction for producing high pressure in a fluid to be atomized that comprises a nozzle **54** having one or more nozzle openings and an outer surface at a fluid outlet side of the nozzle (see **page 9 beginning last paragraph continued on page 10**); a nozzle holder **53** which comprises a through-bore having a sidewall initiating at a position in communication with the one or more nozzle openings of the fluid outlet side of the nozzle, and terminating at an end face of the nozzle holder; wherein at least one of the following surfaces includes at least one of microstructures and nanostructures (see **page 9 beginning last paragraph continued on page 10**): the outer surface of the fluid outlet side of the nozzle, an outer surface of the end face of the nozzle holder, or the side wall of the through-bore of the nozzle holder.

13. **As to claim 8**, Jaeger teaches an apparatus wherein the through-bore **7** of the nozzle holder **53** widens out **33** from one or more nozzle openings to the end face thereof (see **figure 1**).

14. **As to claim 10**, Jaeger teaches an apparatus wherein a side of the through bore **7** that is remote from the one or more nozzle openings includes at least one of microstructures and nanostructures (see **page 9 beginning last paragraph continued on page 10**).

15. **As to claim 11**, Jaeger teaches an apparatus wherein the nozzle comprises an outlet side and an inlet side (see **page 9 beginning last paragraph continued on page 10**).

16. **As to claim 13**, Jaeger teaches an apparatus that comprises a nozzle system (see **figure 1**).

17. **As to claim 14**, Jaeger teaches an apparatus that comprises a lower **70** and upper **51** housing part mounted to be rotatable relative to one another, the upper part of the housing containing a spring housing **67** with a spring **68** which is tensioned by rotating the two housing

parts by means of a locking clamping mechanism **62** and is released by pressing a release button **64** on the upper part of the housing, the spring moving a power take-off flange **56** connected to a piston **57** on the lower end of which a container can be fitted, and at the upper end of which are found a valve **58** and a pressure chamber **4** which is connected for fluid transmission to the nozzle system formed in the upwardly open part of the upper housing part (see page 17 paragraph 4).

18. As to claim 15, Jaeger teaches an apparatus wherein the device is an inhaler atomizer for delivering medicinal or pharmaceutical fluids (see page 3 paragraph 1).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nihir Patel whose telephone number is (571) 272-4803. The examiner can normally be reached on 7:30 to 4:30 every other Fridays off.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patricia Bianco can be reached on (571) 272-4940. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Application/Control Number:
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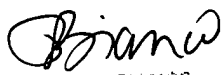
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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Art Unit 3772



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1/22/08